

# CLAIMS:

1. An isolated polypeptide comprising an amino acid sequence which has at least 90% identity to the amino acid sequence selected from the group consisting of: SEQ ID NO:4 and SEQ ID NO:6 over the entire length of SEQ ID NO:4 or SEQ ID NO:6 respectively.
2. An isolated polypeptide as claimed in claim 1 in which the amino acid sequence has at least 95% identity to the amino acid sequence selected from the group consisting of: SEQ ID NO:4 and SEQ ID NO:6 over the entire length of SEQ ID NO:4 or SEQ ID NO:6 respectively.
3. The polypeptide as claimed in claim 1 comprising the amino acid sequence selected from the group consisting of: SEQ ID NO:4 and SEQ ID NO:6.
4. An isolated polypeptide having the amino acid sequence selected from the group consisting of SEQ ID NO:4 and SEQ ID NO:6.
5. An isolated polypeptide having the amino acid sequence of SEQ ID NO:2.
6. An immunogenic fragment of the polypeptide as claimed in any one of claims 1 to 5 in which the immunogenic fragment is capable of raising an immune response (if necessary when coupled to a carrier) which recognises the polypeptide of SEQ ID NO:2, SEQ ID NO:4 or SEQ ID NO:6.
7. A polypeptide as claimed in any of claims 1 to 6 wherein said polypeptide is part of a larger fusion protein.
8. An isolated polynucleotide encoding a polypeptide as claimed in any of claims 1 to 7.
9. An isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide that has at least 90% identity to the amino acid sequence of SEQ ID NO: 4 or 6 over the entire

length of SEQ ID NO: 4 or 6 respectively; or a nucleotide sequence complementary to said isolated polynucleotide.

10. An isolated polynucleotide comprising a nucleotide sequence that has at least 90% identity to a nucleotide sequence encoding a polypeptide of SEQ ID NO: 4 or 6 over the entire coding region; or a nucleotide sequence complementary to said isolated polynucleotide.

11. An isolated polynucleotide which comprises a nucleotide sequence which has at least 97% identity to that of SEQ ID NO: 3 or 5 over the entire length of SEQ ID NO: 3 or 5 respectively; or a nucleotide sequence complementary to said isolated polynucleotide.

12. The isolated polynucleotide as claimed in any one of claims 8 to 11 in which the identity is at least 99% to SEQ ID NO: 3 or 5.

13. An isolated polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:4 or SEQ ID NO:6.

14. An isolated polynucleotide comprising the polynucleotide of SEQ ID NO:3 or SEQ ID NO:5.

15. An isolated polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:4 or SEQ ID NO:6, obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe having the sequence of SEQ ID NO:3 or SEQ ID NO:5 or a fragment thereof.

16. An isolated polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:2.

17. An isolated polynucleotide comprising the polynucleotide of SEQ ID NO:1.

18. An isolated polynucleotide comprising a nucleotide sequence encoding the polypeptide of SEQ ID NO:2, obtainable by screening an appropriate library under stringent

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hybridization conditions with a labeled probe having the sequence of SEQ ID NO:1 or a fragment thereof.

19. An expression vector or a recombinant live microorganism comprising an isolated polynucleotide according to any one of claims 8 - 18.

20. A host cell comprising the expression vector of claim 19 expressing an isolated polypeptide comprising an amino acid sequence that has at least 90% identity to the amino acid sequence selected from the group consisting of: SEQ ID NO:4 or SEQ ID NO:6, or a membrane of the host cell containing the expressed polypeptide.

21. A process for producing a polypeptide comprising an amino acid sequence that has at least 90% identity to the amino acid sequence selected from the group consisting of SEQ ID NO:4 or SEQ ID NO:6 comprising culturing a host cell of claim 20 under conditions sufficient for the production of said polypeptide and recovering the polypeptide from the culture medium.

22. A process for expressing a polynucleotide of any one of claims 8 - 18 comprising transforming a host cell with the expression vector comprising at least one of said polynucleotides and culturing said host cell under conditions sufficient for expression of any one of said polynucleotides.

23. A vaccine composition comprising an effective amount of the polypeptide of any one of claims 1 to 7 and a pharmaceutically acceptable carrier.

24. A vaccine composition comprising an effective amount of the polynucleotide of any one of claims 8 to 18 and a pharmaceutically effective carrier.

25. The vaccine composition according to either one of claims 23 or 24 wherein said composition comprises at least one other *Neisseria meningitidis* antigen.

26. An antibody immunospecific for the polypeptide or immunological fragment as claimed in any one of claims 1 to 7.

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27. A method of diagnosing a *Neisseria meningitidis* infection, comprising identifying a polypeptide as claimed in any one of claims 1 - 7, or an antibody that is immunospecific for said polypeptide, present within a biological sample from an animal suspected of having such an infection.

28. Use of a composition comprising an immunologically effective amount of a polypeptide as claimed in any one of claims 1 - 7 in the preparation of a medicament for use in generating an immune response in an animal.

29. Use of a composition comprising an immunologically effective amount of a polynucleotide as claimed in any one of claims 8 - 18 in the preparation of a medicament for use in generating an immune response in an animal.

30. A therapeutic composition useful in treating humans with *Neisseria meningitidis* disease comprising at least one antibody directed against the polypeptide of claims 1 - 7 and a suitable pharmaceutical carrier.

